

WE CLAIM:

1. A polypeptide which is capable of binding to one of FCEL or FCEH but which is substantially incapable of binding to the other of FCEL or FCEH.
2. The polypeptide of claim 1 which comprises amino acid sequence which is substantially homologous to an Fc_ε3-Fc_ε4 sequence.
3. The polypeptide of claim 2 which comprises amino acid sequence greater than about 80% homologous with an Fc_ε3-Fc_ε4 sequence and which contains at least about 50 residues.
4. The polypeptide of claim 1 which is an immunoglobulin.
5. The immunoglobulin of claim 4 which is capable of binding to FCEL but which is substantially incapable of binding to FCEH.
6. The immunoglobulin of claim 5 which is an IgE analogue having a variant amino acid sequence within about residues 420 to 428, inclusive.
7. The immunoglobulin of claim 5 which is an IgE analogue having a variant amino acid sequence within about residues 446 to 453, inclusive.
8. The immunoglobulin of claim 6 further comprising IgE residues about from 373-390 and wherein the variant amino acid sequence is a deletion of one of residues 423-428.
9. The immunoglobulin of claim 4 which further comprises a cytotoxic polypeptide, an enzyme, a diagnostic label, or an immunoglobulin variable domain capable of binding a predetermined antigen.
10. The immunoglobulin of claim 5 which is an IgE analogue having a variant amino acid sequence within about residues 420-428, inclusive, and within about residues 446 to 453, inclusive.

11. The immunoglobulin of claim 10 which is capable of binding complement.
12. The immunoglobulin of claim 9 wherein the antigen is CD8 or CD3.
13. The immunoglobulin of claim 9 wherein the antigen is a lymphoid cell surface antigen.
14. An immunoglobulin of claim 9 which comprises an IgG, IgA, IgD or IgM sequence.
15. A method for treating an allergic disorder which comprises administering to a patient susceptible to an allergy a therapeutically effective amount of an FCEL or FCEH specific polypeptide, provided that the FCEH-specific polypeptide is incapable of crosslinking FCEH and inducing histamine release.
16. A polypeptide capable of binding to FCEL and having a human IgE beta strand D sequence which is substantially incapable of binding to FCEH, said polypeptide containing no more than about 40 residues.
17. The polypeptide of claim 16 having no more than about 30 residues.
18. The polypeptide of claim 17 wherein a residue within the beta strand D domain has been deleted or substituted, or another residue inserted within the beta strand D domain.
19. A polypeptide capable of binding to FCEH, containing a beta strand D sequence of IgE, and having no more than 19 residues.
20. The polypeptide of claim 1 which is capable of binding to FCEH but not FCEL and comprises IgE sequence selected from about residues 420 to about 442.
21. The polypeptide of claim 19 which comprises the IgE amino acid sequence of residues K423-R428.
22. The polypeptide of claim 1 which comprises less than about 20 residues and which

is conformationally constrained.

23. The polypeptide of claim 1 which binds FCEL with at least about 75% of the affinity of native IgE and binds FCEH with no greater than about 10% of the affinity of native IgE.

24. The immunoglobulin of claim 4 which comprises an IgE complementarity determining region.

25. The immunoglobulin of claim 4 which is capable of binding to FCEH but which is substantially incapable of binding to FCEL.

26. The immunoglobulin of claim 25 which is an IgE analogue having a variant amino acid sequence within about residues 373 to 390, inclusive or residues 446 to 453, inclusive.

27. The immunoglobulin of claim 25 which is an IgE analogue having a variant amino acid sequence within about residues 382 to 390, inclusive or residues 446 to 453, inclusive.

28. The immunoglobulin of claim 27 which further comprises a FCEH-binding loop EF and beta strand D domain.

29. The immunoglobulin of claim 24 which further comprises an immunoglobulin variable domain capable of binding a predetermined antigen, an enzyme or a diagnostic label.

30. The immunoglobulin of claim 29 wherein the antigen is CD8 or CD3.

31. The immunoglobulin of claim 29 wherein the antigen is a lymphoid cell surface antigen.

32. The immunoglobulin of claim 25 which comprises an IgG, IgA, IgD or IgM sequence.

33. The immunoglobulin of claim 25 which binds FCEH with at least about 75% of the

affinity of native IgE, and binds FCEL with no greater than about 10% of the efficiency of native IgE.

34. A polypeptide capable of binding to FCEL and comprising a FCEL binding domain of the human loop AB-beta strand B of IgE, said polypeptide having no more than about 25 residues.

35. The polypeptide of claim 34 which is human.

36. The polypeptide of claim 34 having no more than about 10 residues.

37. The polypeptide of claim 34 which is not A358-T389 or R383-I388.

38. The polypeptide of claim 34 wherein beta strand D is deleted.

39. The polypeptide of claim 37 wherein the amino acid sequence comprises the IgE sequence I382-T389.

40. An antibody which is capable of binding to FCEL-bound IgE but is substantially incapable of binding to FCEH-bound IgE, comprising a human Kabat CDR domain into which has been substituted an analogous residue from a Kabat CDR domain of MAE11, MAE13, MAE15, MAE17.

41. The antibody of claim 40 wherein the residue is from the MAE11, MAE13 or MAE15 Kabat VH1 CDR domain.

42. The antibody of claim 40 wherein the substituted amino acid sequence comprises from 1 to about 7 residues from a MAE11, MAE13 or MAE15 Kabat CDR domain

43. The antibody of claim 40 wherein the substituted residue is from the MAE11, MAE13 or MAE15 Kabat VH1, VH2, VH3, VL1, VL2 and VL3 domains.

44. The antibody of claim 40 which comprises non-CDR sequence from a Kabat human consensus antibody.

45. The antibody of claim 44 wherein the consensus antibody is Kabat subgroup III for heavy chain and kappa subgroup I for light chain.
46. The antibody of claim 40 further comprising a residue substituted from a MAE11, MAE13, MAE15 or MAE17 framework or VH-VL interface domain into the analogous residue of the human antibody.
47. The antibody of claim 40 wherein the residue is from the heavy chain framework.
48. The antibody of claim 47 wherein the residue is VH78, VH60 or VH61.
49. An antibody which is capable of binding to FCEL-bound IgE but is substantially incapable of binding to FCEH-bound IgE, comprising the heavy and light chain sequences of humaellver.1, 2, 3, 4, 5, 6, 7, 7a, 8, 8a, 8b or 9.
50. The antibody of claim 48 which is humaellver.9.
51. A bispecific antibody which is capable of binding to FCEL-bound IgE but is substantially incapable of binding to FCEH-bound IgE.
52. An antibody which is (a) monovalent for FCEL-bound IgE but is substantially incapable of binding to FCEH-bound IgE and (b) is capable of an immunoglobulin effector function and comprises an Fc domain containing at least two heavy chains.
53. An antibody which is capable of binding to FCEL-bound IgE but is substantially incapable of binding to FCEH-bound IgE, comprising a human consensus heavy chain and light chain sequence.
54. The antibody of claim 52 wherein the consensus heavy chain is Kabat subgroup III and the consensus light chain is Kabat kappa subgroup I.
55. An antibody which is capable of binding to FCEL-bound IgE but is substantially incapable of binding to FCEH-bound IgE, comprising a human heavy chain and light chain

56. The antibody of claim 54 wherein the affinity for IgE is about .1 to 100 times greater than that of MAE11 for IgE.

57. The antibody of claim 54 wherein the human heavy chain or light chain sequence comprises a residue substituted from MAE11, MAE13 or MAE15.